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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/765,028	01/26/2004	Dwight Eric Kinzer	Kinzer-001	1317

7590 12/15/2006

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EXAMINER	
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ART UNIT	PAPER NUMBER
3637	

DATE MAILED: 12/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/765,028	KINZER, DWIGHT ERIC	
	Examiner	Art Unit	
	Phi D. A	3637	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 September 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-55 and 57* is/are pending in the application.

4a) Of the above claim(s) *3-11,17,18,25,26,30,46* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,12-16,19-24,27-29,31-45,47-55 and 57* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Drawings

1. The drawings are objected to under 37 CFR 1.83(a) because they fail to show the limitations of claims 12-13 as described in the specification. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

2. PRODUCT BY PROCESS CLAIM:

" The subject matter present is regarded as a product by process claim in which a product is introduced by the method in which it is made. It is the general practice of this office to examine the final product described regardless of the method provided by the applicant."

The above office policy applies to the product by process limitations of claims 36, 49, and 55.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claim 50 is rejected under 35 U.S.C. 103(a) as being unpatentable over Societe Meusienne (GB1033890) in view of Sams (4218859).

Meusienne shows a structural column comprising a plurality of column legs arrayed about a common central vertical axis, each of the legs (figure 7b) comprising a first flat side and a second flat side, said first and second flat sides being arranged at an obtuse angle relative to each other (see figure 7a), each flat side comprising an inward facing surface and an outward facing surface, the inward facing surface of the first flat side one leg parallels and meets or nearly meets the inward facing surface of the second flat side of another leg, each of the legs further comprising a plurality of vertically aligning column panels, each column panel comprising a top edge, a first and second flat sides that correlate with the first and second flat sides of the leg, and inward and outward facing surfaces that correlate with the inward and outward facing surfaces of the leg, all seams where the top and bottom edges of vertically aligning column panels meet, occur in different substantially horizontal planes from each other along the entire length of the column, creating a staggered relationship of the column panels throughout the column thereby creating column strength.

Meusienne does not show the first and side flat sides being arranged at an obtuse angle relative to each other.

Sams (figure 3a) shows a structural column having first and second flat sides (the sides connected by part 30) arranged at an obtuse angle relative to each other.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Meusienne's structure to show the flat sides being arranged at an obtuse angle relative to each other because it would enable the formation of a column with three sides at taught by Sams.

5. Claims 1-2, 12-13, 37, 42-44, 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sams (4218859) in view of Kleine et al (4248025) and Societe Meusienne (GB1033890).

Sams shows a structural column (figure 3a, 5) comprising a column component including a plurality of column panels (30), each column panel having a top edge, a bottom edge, a first flat side (34 left), a second flat side (34 right), an inward facing surface and an outward facing surface, the first flat side oriented at an obtuse angle from the second flat side, a plurality of the column panels being aligned in a first horizontal array around a vertically oriented central axis such that the obtuse angle is of a magnitude to allow inward facing surface of the first flat side of one column panel to align with the inward facing surface of the second flat side of an adjacent column panel, a plurality of bore holes along the top, bottom, and side edges to allow fastening means to column and structural components, at least one of the horizontal cross members (62) is a beam, the beam comprising a C-beam, the beam comprising top and bottom edges and two side edges, at least one side edges attached to the column component with fastening means, at least

one side edges attached to the column component with fastening means, the beam comprising an upper flange (the flange immediately to the left of the peak), a horizontal corrugation, a lower flange, two side edges, at least one side edge attaching to the column components with fastening means, at least one of the beams is a hopper support beam (figure 6), the hopper support beam being attached directly to a column and supporting a hopper panel, the hopper panel being sloped downward at a predetermined angle, the predetermined angle generally ranging from about 30-60 degrees from a vertical plane (figure 6) the corrugation of the hopper support beam aligning with the predetermined angle, the hopper panel arrayed about a central axis to form a hopper, the hopper comprising a top edge and a lower aperture, the top edge being attached to the hopper support beam (figure 6), a plurality of hoppers (figure 2), said hopes having the top edges attached to the columns on at least one predetermined vertical height, one of the columns attaches at or near a location where a side edge of one said horizontal cross members aligns with a side edge of another horizontal cross member, the column thus effectively covering a vertically oriented seam wherein the side edges of the horizontal cross members meet or nearly meet, thus serving as a side support column, thereby extending the horizontal length of a side of the structure (inherently so), at least one of the horizontal cross members attaches to the columns that extend above the walls of the structure (figure 1) thereby forming at least one upper level above the walls, at least one of the horizontal cross members attaches to at least one said column to form a structural load bearing tower (figure 1), the structure can be erected using jacking means within an existing structure thereby utilizing existing infrastructure (Process by Process limitation treated as stated above), anchoring means attached to the base of the column, the structural column having a plate attached in a substantially horizontal plane to the very top of the

column, separations between the top and bottom edges of the vertically aligning column components, the separations being of a predetermined magnitude, the magnitude generally not exceeding a thickness of the column components thereby allowing the column to better withstand bending, twisting, expansion, and contraction forces

Sams does not show the structural column comprising a plurality of column components, a plurality of the column panels being aligned in a second horizontal array of column panels similar to the first horizontal array, the first and second horizontal arrays of column panels being aligned along the vertically oriented central axis to form two adjoining horizontal arrays, at least one column component within the first array being attached to a component within the second array, at least one component within the second horizontal array being attached to a component within the first horizontal array, at least one of the column panels of the first array being of substantially different vertical length from other column panels therein such that the bottom edges of column panels within the first array are offset in different horizontal planes from each other and the top edges are generally in the same horizontal plane, at least one of the panels of the second array is of a substantially different vertical length from other column panels therein such that the top edges are offset in different horizontal planes from each other and the bottom edges are generally in the same horizontal plane, the first and second flat sides of at least one offset column panel in the first horizontal array being attached to at least second and first flat sides respectively, of an offset column in the second array, the column panels being staggered within the first and second arrays so as to form a staggered relationship having a plurality of seams, the seams occurring where the top and bottom edges of the panels meet, the seams lying in substantially different horizontal planes from each other through the column, the panels within

the column being offset or staggered thereby creating column strength, the arrays being aligned along a vertically oriented common central axis to form two adjoining horizontal arrays.

Meusienne (figures 1a, 5a, 7a, 7b) shows a structural column comprising a plurality of column components, a plurality of the column panels (7a, 7b) being aligned in a second horizontal array of column panels similar to the first horizontal array, the first and second horizontal arrays of column panels being aligned along the vertically oriented central axis to form two adjoining horizontal arrays, at least one column component within the first array being attached to a component within the second array, at least one component within the second horizontal array being attached to a component within the first horizontal array, the first and second flat sides of at least one offset column panel in the first horizontal array being attached to at least second and first flat sides respectively, of an offset column in the second array, the column panels being staggered within the first and second arrays so as to form a staggered relationship having a plurality of seams, the seams occurring where the top and bottom edges of the panels meet, the seams lying in substantially different horizontal planes from each other through the column, the panels within the column being offset or staggered thereby creating column strength, the arrays being aligned along a vertically oriented common central axis to form two adjoining horizontal arrays.

Kleine et al shows a column having a plurality of column components, the column component forming different arrays, a first array of column components having at least one panel (18) being of substantially different vertical length from other column member therein such that the bottom edges of column panel within the first array are offset in different horizontal planes from each other and the top edges are generally in the same horizontal plane (figure 2, the first

array making up of the top section of the column), at least one of the panels (19, 18, 20) of the second array is of a substantially different vertical length from other column panels therein such that the top edges are offset in different horizontal planes from each other and the bottom edges are generally in the same horizontal plane (the bottom section).

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Sams' structure to show a structural column comprising a plurality of column components, a plurality of the column panels (7a, 7b) being aligned in a second horizontal array of column panels similar to the first horizontal array, the first and second horizontal arrays of column panels being aligned along the vertically oriented central axis to form two adjoining horizontal arrays, at least one column component within the first array being attached to a component within the second array, at least one component within the second horizontal array being attached to a component within the first horizontal array, the first and second flat sides of at least one offset column panel in the first horizontal array being attached to at least second and first flat sides respectively, of an offset column in the second array, the column panels being staggered within the first and second arrays so as to form a staggered relationship having a plurality of seams, the seams occurring where the top and bottom edges of the panels meet, the seams lying in substantially different horizontal planes from each other through the column, the arrays being aligned along a vertically oriented common central axis to form two adjoining horizontal arrays, the panels within the column being offset or staggered thereby creating column strength as taught by Meusienne, and a column having a plurality of column components, the column component forming different arrays, a first array of column components having at least one panel (18) being of substantially different vertical length from

other column member therein such that the bottom edges of column panel within the first array are offset in different horizontal planes from each other and the top edges are generally in the same horizontal plane (figure 2, the first array making up of the top section of the column), at least one of the panels (19, 18, 20) of the second array is of a substantially different vertical length from other column panels therein such that the top edges are offset in different horizontal planes from each other and the bottom edges are generally in the same horizontal plane as taught by Kleine et al because having a tall vertical supporting structure made of multiple sections would enable the easy extension of a vertical shaft without having to utilize expensive equipment, and having the different sections joined staggering at the seams would enhance the rigidity of the structural column as taught by Meusienne and Kleine et al.

Per claim 2, Sams as modified shows all the claimed limitations except for the column including at least one intermediate horizontal array that lies between the first and second arrays, the top edges of the column panels within the intermediate array aligning with the bottom edges of the column panels within the first array, the flat sides of at least one column panel in the intermediate array aligning with the flat sides of the a column panel in the first array, the flat sides of a another column panel in the intermediate array aligning with the flat sides of a column panel within the second horizontal array, the column panels within the intermediate horizontal array maintaining the staggered relationship.

Meusienne further shows the column including at least one intermediate horizontal array that lies between the first and second arrays, the top edges of the column panels within the intermediate array aligning with the bottom edges of the column panels within the first array, the flat sides of at least one column panel in the intermediate array aligning with the flat sides of the

a column panel in the first array, the flat sides of a another column panel in the intermediate array aligning with the flat sides of a column panel within the second horizontal array, the column panels within the intermediate horizontal array maintaining the staggered relationship.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Sams's modified structure to show the column including at least one intermediate horizontal array that lies between the first and second arrays, the top edges of the column panels within the intermediate array aligning with the bottom edges of the column panels within the first array, the flat sides of at least one column panel in the intermediate array aligning with the flat sides of the a column panel in the first array, the flat sides of a another column panel in the intermediate array aligning with the flat sides of a column panel within the second horizontal array, the column panels within the intermediate horizontal array maintaining the staggered relationship because it would enable the easy, and rigid formation of a tall vertical panel as taught by Meusienne.

Per claims 12-13, Sams as modified shows all the claimed limitations except for the column components having a gradation in thickness such that thicker components are generally in lower horizontal arrays and thinner components are generally in upper horizontal arrays, the column components having gradations in width of flat sides, such that components with wider flat sides are generally in lower horizontal arrays and components with narrower flat sides are generally in upper horizontal arrays.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Sams's modified structure to show the column components having a gradation in thickness such that thicker components are generally in lower horizontal arrays and

thinner components are generally in upper horizontal arrays, the column components having gradations in width of flat sides, such that components with wider flat sides are generally in lower horizontal arrays and components with narrower flat sides are generally in upper horizontal arrays because a person having ordinary skill in the art would know to pick the desired thickness and widths for the different sections of the vertical columns since it is well known that a structural column supports more vertical weight at the bottom than at the top, and the fact that choosing the different thicknesses and widths would have been known to one having ordinary skill in the art is further described by applicant on page 19 paragraph 68 which states that " the preferred thickness of the column panels...can vary...Widths of flat sides...panels...can also vary....these factors can be determined by one skilled in the art".

6. Claims 14-16, 19, 24, 27-31, 33-36, 47-49, 51-55, 57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sams (4218859) in view of Kleine et al (4248025) and Societe Meusienne (GB1033890) as applied to claim 1 or 44 above and further in view of Fairchild Jr. (3327870).

Sams as modified shows all the claimed limitations except for the column having horizontal members attach directly to column components forming multiple horizontal strata of the structure, the strata including a top horizontal stratum, at least one intermediate horizontal stratum and a bottom horizontal stratum.

Sams (figure 5) further shows the column including structural components, the components being attached to a plurality of columns to form a structure, the structure having a geometric shape in horizontal cross section, the structural components comprising a plurality of wall panels (26, two panels are a plurality) and horizontal cross members (62 or 26 as structural

limitation is not yet clearly claimed) that join one column to another and attach directly to column components thus forming a stratum, at least one of the additional horizontal cross members (26) being sandwiched between the inward facing surfaces of the columns and attached thereto, at least one said additional horizontal cross members (62) joins two columns and attaches to the outward facing surface of the columns (through its connection to the bottom of the column), the horizontal cross members (26) are wall panels that are substantially rectangular in shape, comprising a top edge, a bottom edge, and two side edges, the wall panel beginning and ending at predetermined vertical heights of the column.

Fairchild Jr. shows a column having horizontal members (38, 36) attach directly to column components (52) forming multiple horizontal strata of the structure, the strata including a top horizontal stratum, at least one intermediate horizontal stratum and a bottom horizontal stratum.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Sams' modified structure to show the column having horizontal members attach directly to column components forming multiple horizontal strata of the structure, the strata including a top horizontal stratum, at least one intermediate horizontal stratum and a bottom horizontal stratum as taught by Fairchild Jr. because copying the same components from the bottom array to form vertical extension of the bottom components would allow for the easy vertical extension of the column structure, and it has been held that while the general invention concept has been shown, making multiple of the same inventive concept would have been obvious to one having ordinary skill in the art.

Per claim 19, Sams' as modified further shows the panels aligning with one another vertically to form a wall.

7. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sams (4218859) in view of Kleine et al (4248025), Fairchild Jr. (3327870) and Societe Meusienne (GB1033890) as applied to claim 19 above and further in view of Smith (1250685).

Sams' as modified shows all the claimed limitations except for the wall panels having at least two substantially different vertical lengths so as to create a stagger of substantially horizontal oriented seams between the panels such that no seam, where top and bottom edges of the wall panels meet, is in the same horizontal plane as seams from adjacent walls.

Smith (figure 1) shows wall panels (3;, 3) having at least two substantially different vertical lengths so as to create a stagger of substantially horizontal oriented seams between the panels such that no seam, where top and bottom edges of the wall panels meet, is in the same horizontal plane as seams from adjacent walls, the staggering provides for provide a good balance against stress and strains (col 2lines 18-29).

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Sams's modified structure to show the wall panels having at least two substantially different vertical lengths so as to create a stagger of substantially horizontal oriented seams between the panels such that no seam, where top and bottom edges of the wall panels meet, is in the same horizontal plane as seams from adjacent walls because it provides for a good balance against stresses and strains as taught by Smith.

8. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sams (4218859) in view of Kleine et al (4248025), Fairchild Jr. (3327870) and Societe Meusienne (GB1033890) as applied to claim 19 above and further in view of Wilson et al (3382633).

Sams' as modified shows all the claimed limitations except for the wall panels having at least two substantially different horizontal lengths so as to create a stagger of substantially vertical oriented seams between the panels such that no seam, where side edges of the wall panels meet, such that no vertically oriented seam is in the same vertical plane as seams from adjacent walls.

Wilson et al (figure 2) shows wall panels (21 and the one marked by B and A) having at least two substantially different horizontal lengths so as to create a stagger of substantially vertical oriented seams between the panels such that no seam, where side edges of the wall panels meet, such that no vertically oriented seam is in the same vertical plane as seams from adjacent walls.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Sams's modified structure to show the wall panels having at least two substantially different horizontal lengths so as to create a stagger of substantially vertical oriented seams between the panels such that no seam, where side edges of the wall panels meet, such that no vertically oriented seam is in the same vertical plane as seams from adjacent walls as taught by Wilson et al because the different spacing allows for the easy and complete covering of a rounded silo.

9. Claims 1, 14, 19, 22-24, 27-28, 42-43, 44-45, 47, 49-55, 57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rensch (3374593) in view of Kleine et al (4248025) and Societe Meusienne (GB1033890).

Rensch (figures 1, 9) shows a structural column comprising a column component including a plurality of column panels (2), each column panel having a top edge, a bottom edge, a first flat side (3 left), a second flat side (3 right), an inward facing surface and an outward facing surface, the first flat side oriented at an obtuse angle from the second flat side, a plurality of the column panels being aligned in a first horizontal array around a vertically oriented central axis such that the predetermined angle is of a magnitude to allow inward facing surface of the first flat side of one column panel to align with the inward facing surface of the second flat side of an adjacent column panel, the column including structural components, the components being attached to a plurality of said columns to form a structure (figure 9), the structure having a geometric shape in horizontal cross section, the components comprising a plurality of wall panels (18a, figure 9, top panels), and horizontal cross members (18a, figure 9, bottom panels) that join one column to another and attach directly to column components, thus forming multiple horizontal strata of the structure, the strata including a top horizontal stratum, at least one intermediate horizontal stratum, and a bottom horizontal stratum, the horizontal cross members are wall panels that are substantially rectangular in shape, comprising a top edge, a bottom edge, and two side edges, the wall panels aligning with one another vertically to form a wall, or partition, the wall beginning and ending at predetermined vertical heights along the column, the wall panels are attached to outward facing surfaces of column components such that parallel, outward facing surfaces have wall panels attached thereon to form a wall that comprising walls

that are parallel to each other with a gap therebetween, a plurality of bore holes along the top, bottom, and side edges to allow fastening means to column and structural components, at least one of the horizontal cross members (62) is a beam, the beam comprising a C-beam, the beam comprising top and bottom edges and two side edges, at least one side edges attached to the column component with fastening means, the beam comprising an upper flange, a horizontal corrugation, a lower flange, two side edges, at least one side edge attaching to the column components with fastening means, the structural column having a plate attached in a substantially horizontal plane to the very top of the column, separations between the top and bottom edges of the vertically aligning column components, the separations being of a predetermined magnitude, the magnitude generally not exceeding a thickness of the column components thereby allowing the column to better withstand bending, twisting, expansion, and contraction forces.

Rensch does not show the structural column comprising a plurality of column components, a plurality of the column panels being aligned in a second horizontal array of column panels similar to the first horizontal array, the first and second horizontal arrays of column panels being aligned along the vertically oriented common central axis to form two adjoining horizontal arrays, at least one column component within the first array being attached to a component within the second array, at least one component within the second horizontal array being attached to a component within the first horizontal array, at least one of the column panels of the first array being of substantially different vertical length from other column panels therein such that the bottom edges of column panels within the first array are offset in different horizontal planes from each other and the top edges are generally in the same horizontal plane, at

least one of the panels of the second array is of a substantially different vertical length from other column panels therein such that the top edges are offset in different horizontal planes from each other and the bottom edges are generally in the same horizontal plane, the first and second flat sides of at least one offset column panel in the first horizontal array being attached to at least second and first flat sides respectively, of an offset column in the second array, the column panels being staggered within the first and second arrays so as to form a staggered relationship having a plurality of seams, the seams occurring where the top and bottom edges of the panels meet, the seams lying in substantially different horizontal planes from each other through the column, the panels within the column being offset or staggered thereby creating column strength.

Meusienne (figures 1a, 5a, 7a, 7b) shows a structural column comprising a plurality of column components, a plurality of the column panels (7a, 7b) being aligned in a second horizontal array of column panels similar to the first horizontal array, the first and second horizontal arrays of column panels being aligned along the vertically common oriented central axis to form two adjoining horizontal arrays, at least one column component within the first array being attached to a component within the second array, at least one component within the second horizontal array being attached to a component within the first horizontal array, the first and second flat sides of at least one offset column panel in the first horizontal array being attached to at least second and first flat sides respectively, of an offset column in the second array, the column panels being staggered within the first and second arrays so as to form a staggered relationship having a plurality of seams, the seams occurring where the top and bottom edges of the panels meet, the seams lying in substantially different horizontal planes from each other

through the column, the panels within the column being offset or staggered thereby creating column strength.

Kleine et al shows a column having a plurality of column components, the column component forming different arrays, a first array of column components having at least one panel (18) being of substantially different vertical length from other column member therein such that the bottom edges of column panel within the first array are offset in different horizontal planes from each other and the top edges are generally in the same horizontal plane (figure 2, the first array making up of the top section of the column), at least one of the panels (19, 18, 20) of the second array is of a substantially different vertical length from other column panels therein such that the top edges are offset in different horizontal planes from each other and the bottom edges are generally in the same horizontal plane (the bottom section).

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Renschs' structure to show a structural column comprising a plurality of column components, a plurality of the column panels (7a, 7b) being aligned in a second horizontal array of column panels similar to the first horizontal array, the first and second horizontal arrays of column panels being aligned along the vertically common oriented central axis to form two adjoining horizontal arrays, at least one column component within the first array being attached to a component within the second array, at least one component within the second horizontal array being attached to a component within the first horizontal array, the first and second flat sides of at least one offset column panel in the first horizontal array being attached to at least second and first flat sides respectively, of an offset column in the second array, the column panels being staggered within the first and second arrays so as to form a staggered

relationship having a plurality of seams, the seams occurring where the top and bottom edges of the panels meet, the seams lying in substantially different horizontal planes from each other through the column, the panels within the column being offset or staggered thereby creating column strength as taught by Meusienne, and a column having a plurality of column components, the column component forming different arrays, a first array of column components having at least one panel (18) being of substantially different vertical length from other column member therein such that the bottom edges of column panel within the first array are offset in different horizontal planes from each other and the top edges are generally in the same horizontal plane (figure 2, the first array making up of the top section of the column), at least one of the panels (19, 18, 20) of the second array is of a substantially different vertical length from other column panels therein such that the top edges are offset in different horizontal planes from each other and the bottom edges are generally in the same horizontal plane as taught by Kleine et al because having a tall vertical supporting structure made of multiple sections would enable the easy extension of a vertical shaft without having to utilize expensive equipment, and having the different sections joined staggering at the seams would enhance the rigidity of the structural column as taught by Meusienne and Kleine et al.

Per claim 23, Rensch as modified shows all the claimed limitations except for the wall panels having substantially no gap between them so as to form a multi-ply wall.

Rensch further discloses the structure can be used to form a partition assembly.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Rensch's modified structure to show the wall panels having substantially no gap between them so as to form a multi-ply wall because it would enable the formation of a

partition assembly/wall utilizing Rensch's modified structural assembly to form a space divider domestically.

10. Claims 32, 48 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sams (4218859) in view of Kleine et al (4248025) and Societe Meusienne (GB1033890) as applied to claim 14 or 47above and further in view of Stanelle (4338752).

Sams as modified shows all the claimed limitations except for the structure comprising a plurality of arced horizontal cross members in horizontal cross section to form a round structure, the columns being arrayed along the arc to the cross members and attached to the structure.

Stanelle shows a structure comprising plurality of arced horizontal cross members(15) in horizontal cross section to form a round structure, the columns being arrayed along the arc to the cross members and attached to the structure.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Sams' modified structure to show the structure comprising a plurality of arced horizontal cross members in horizontal cross section to form a round structure, the columns being arrayed along the arc to the cross members and attached to the structure because it enables the cross members to support a round structure as taught by Stanelle.

11. Claims 37-38, 40-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rensch (3374593) in view of Kleine et al (4248025) and Societe Meusienne (GB1033890) as applied to claim 1 above and further in view of Robinson et al (638280)

Rensch as modified shows all the claimed limitations except for anchoring means attached to the base of the column

Robinson et al discloses an anchoring means (figure 4) attached to the base of the column (17) to enable the secure mounting of the column to a foundation.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Rensch' modified structure to show anchoring means attached to the base of the column because it would enable secure anchoring of a column support to the foundation as taught by Robinson et al.

Per claims 38, 40-41, Rensch as modified by Robinson et al further shows the anchoring means comprising a base plate that is attached with fastening means substantially horizontally to the very bottom of the column, the base plate having vertically oriented boreholes through which anchor bolts from a foundation may pass, tabs being delimited along the bottom edges of column panels as base of the column, the tabs being bent outwardly and horizontally from the column panels, the tabs attached with fastening means to a foundation, tabs being delimited along the bottom edges of the column panels in the second horizontal array, the tabs being bent outwardly and horizontally form column panels of the second horizontal array (the second array being the bottom array), the tabs being attached fastening means to a base plate, the base plate having vertically oriented boreholes through which anchor bolts form a foundation may pass.

12. Claim 39 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rensch (3374593) in view of Kleine et al (4248025), Robinson et al (638280) and Societe Meusienne (GB1033890).

Rensch as modified shows all the claimed limitations including a base plate, vertical flanges, the vertical flanges mating with outside surfaces of the column panels at base of the column, the vertical flanges having substantially horizontally oriented boreholes that ling with

boreholes of the column panels for fastening means, the base plate having substantially vertically oriented boreholes through which anchor bolts form a foundation may pass.

Rensch as modified does not show the base plate being welded to vertical flanges.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Rensch' modified structure to show the base plate being welded to vertical flanges because welding two anchoring plates together instead of having the plates made of a unitary structure would have been obvious to one having ordinary skill in the art as forming a structure out of two pieces instead of one pieces is within one of ordinary skill in the art, and examiner takes official notice of the equivalence of forming a unitary structure through welding or producing a structure as one piece.

Response to Arguments

1. Applicant's arguments with respect to claims 1-55, 57 have been considered but are moot in view of the new ground(s) of rejection.

First of all, with respect to the non-elected species and claims 3-5, 25-26, 30, the claims clearly read on other species non-elected. Applicant elected figure 5A for prosecution, and the elected figure 5A does not contain the structures in claims 3-5, 25-26, 30. The claims are thus restricted and withdrawn from consideration as being non-elected. The argument is thus moot.

With respect to applicant's remark to claim 50 and Meusienne, the argument is moot as the claim is no under 102 rejection.

Applicant's arguments to other rejection is also moot in view of the changes in the rejection prompted by applicant's amendment.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phi D A whose telephone number is 571-272-6864. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lanna Mai can be reached on 571-272-6867. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Phi Dieu Tran A

12/11/06